princess of Bavaria, in the costume of the time in which they lived.

I have thus gone through the list of the buildings calling for particular notice. I am fearful that description, such as mine, is, after all, a feeble mode of making known works of such high importance. I studied these works with the greatest interest, and I compared them with what I had seen at Paris and in Italy. The present style of decorative art in Munich seems founded upon the study of the paintings at Pompeii, mingled with those of Giulio Romano, and a relic of the old German Gothic style, which is often to be traced in their foliage ornaments. In their knowledge of the powers and harmonies of colours, I think the artists of Munich superior to the French; but the artists of Paris excel them in the elegance of form, and the colouring of ornament: in fact, their principles seem directly contrasted: the one (the German) gains his effect in the purity, richness, and harmony of the colours forming his grounds; the French rather in the ornaments themselves. May we in time obtain the excellences of both! The sight of these works raised in my mind a feeling of regret, almost of shame, that a city so inferior to our own metropolis in wealth, historic associations, grandeur, and renown, should so far excel it in the *complete* beauty of its public buildings. I say in the *complete* beauty of its buildings, because we have fine buildings, structures worthy of our famous city, but they are not *complete*. Who can visit St. Paul's Cathedral and not feel what it might be made, if the rich glow of harmonious colouring threw into full effect the exquisite proportions of its architectural details? Is the National Gallery complete? do the ceilings of that building bear tribute to the works of genius on its walls?

Yet I acknowledge that much has been done, and that the profession are alive to the importance of colour in giving value to form. I know that the government are anxious for the success of art, as an important adjunct to manufacture. I know that a Prince to whom all this country looks with affection, is ever anxious to encourage art in whatever form it presents itself; and, therefore, I hope the time is not far distant when the national buildings of London will present to the eye monuments, not of architectural genius alone, but adorned by the sister arts of sculpture and painting.

JOHN G. CRACE.

ELEMENTS OF ORNAMENTAL FORMS.

SYMMETRY AND CONTRAST—REPETITION AND VARIETY—ORNAMENT AND MUSIC.

In course of a lecture on this subject by Mr. Wornum, at the Central School of Design, on 7th ult., after some introductory remarks, in which he divided ornamentation into its two great classes, the flat and the round or relieved—respectively the objects of painting and modelling, on the elements of each of which he dwelt at some length,—the lecturer proceeded to remark that it seemed to be a law of nature that every individual thing should be composed of two similar parts in its outward appearance; and as the internal arrangement was often different, as in the animal creation, that this similarity of externals would appear to be an evidence of the *design* of beauty. We find this similarity of parts more or less decided (he continued) according to the individuality of the object, from the simplest crystalline form to that of man. And we find this remarkable similarity relaxed only where its relaxation does not interfere with the beauty of the object, as in a tree, the two halves of which are not exactly symmetrical in their branches, yet they are generally so, and there is quite as much symmetry in a tree as the eye can appreciate. It is so also with flowers: the calyx and petals of all flowers are symmetrical, and the symmetry is the more decided inversely as the number of flowers on the stem. Plurality of members seems to do away with the special symmetry of the individual member; and where there are several flowers from one root or on one stem, the deviation from individual symmetry is always in favour of the symmetry of the collective group or groups: where nature groups it is the *group* that is the ornament, not the individual, and this is a law which must be observed likewise in art,—as in all clusters, colonnades, or festoons: the individuals of such designs may be arranged at random, provided the cluster, colonnade, or festoon be itself of symmetrical proportions. In endeavouring to be symmetrical in our designs, therefore, so far from being artificial or formal, we are strictly following one of the grand principles of nature. This distinction between the symmetry of the parts and the symmetry of the group or cluster is very important. Take man himself: he is a compound form—a group of trunk, limbs, and extremities: whatever part of the group is balanced by a similar member on the other side is without that symmetry of which we are speaking: the arm is not symmetrical, because it is balanced by a similar member on the other side; but take the head, which has not this plurality to disturb its symmetry, and we find a perfect contrast of the two parts. This I believe to be true of all natural groups, and this law of symmetry is so important, that there is no form or combination of forms whatever that, when symmetrically contrasted or repeated, cannot be made subservient to beauty.

The whole grammar of ornament consists in contrast, repetition, and series. A perfect contrast in form may be defined as the solid, or section of solid, generated by the revolution of an outline around a given axis: a sphere, for instance, may be regarded as a form generated by the revolution of a semicircle round its own diameter. Repetition and series are nearly identical: series comprises repetition, and defines its order. Mouldings are simple repetitions, right-lined or curved, as the case may be. Perhaps the best illustration of the value of series is the kaleidoscope: all the beautiful figures represented by that instrument are repetitions in circular series, and often the rudest materials will generate extremely beautiful effects. The designer should have constant recourse to the kaleidoscope: he will derive an infinite variety of suggestions from it, including an endless store of beautiful rosettes ready made to his hand. The elliptical, or any other regular series, symmetrically arranged, will be found nearly equally valuable with the circular.

The application of these and other principles to diapers, &c., was illustrated by various drawings, and the lecturer thus proceeded:—Taking it for granted that the eye requires variety of surface to gratify that faculty of the mind called taste, how is this variety to be effected? By dividing surfaces into compartments, and by making some portions more prominent than others, and thus producing that contrast which we assumed at starting to be the element of all ornamental effects. These compartments are known as panels, borders, cornice, frieze, basement or dado, capital, shaft, base, pedestal, neck, body, foot, and so on,—all names designating the ornamental divisions of the general schemes of objects. Though these things may not be in themselves ornamented, the mere division of an object into such parts is done solely for variety of effect, in obedience to one of the tendencies of the mind. These various compartments are separated or made prominent by mouldings: mouldings may be either mere suits of concave and convex members, as in many Gothic examples, or the concave series may be filled in with ornamental details; but the border or moulding is the ornament, and not the details of which it is composed; and although these may be varied indefinitely, they ought not to disturb the order or arrangement on which the ornament depends, because special attraction to secondary details is not a merit but a capital defect in a design. The ornamental details referred to are the zigzag, the fret, the echinus, the astragal, the anthemions, the guilloche varieties, and the scrolls. In the zigzag we have the simplest variety of lines we can well conceive. In the frets we have a more complicated order of right lined series. In the varieties of the guilloche we have a similar simple series of curved lines or interlacings. In the echinus we have another character,—a bold alternation of light and shade; and in the astragal we have a similar result on a smaller scale: both of these latter belong essentially to the solid or round. In the scrolls we have a regular running series or alternation of spirals, or any materials treated in that order of curve. Use among the Romans established an extraordinary prestige in favour of the acanthus, but any other materials would answer the purpose. In the anthemions we have a compound element, a succession or alternation of a harmonic group of curves in a conventional adaption of floral forms, as the name anthemion itself implies. In Greek examples we have a smaller and larger cluster alternated, sometimes reversed, sometimes inclosed in a curve, and generally connected by a band, by mere contact, or by some simple scroll.

Every example of an ornament must have an individuality of detail necessarily, but it is a very great mistake to adopt this detail as an essential part of the ornament. Half of our classical buildings are covered with honeysuckles, bringing the whole art of Greece into disgrace for its monotony and formality, while there is scarcely a weed in England that might not with equal skill have been substituted with perhaps equal effect. To the designer, not one of the whole series of popular ornaments is beautiful merely because it represents any natural object: we do not admire the echinus and the astragal, because they are derived from the horse-chesnut or the huckle-bone, but because they are admirable details for that prominent contrast of light and shade which is so extremely valuable for edges or mouldings: in short, the ornament or detail is beautiful in design because it has been chosen to illustrate certain symmetries or contrasts delightful to the mind, just as harmonies and melodies delight it through another of its senses. The analogy between music and ornament, indeed, I believe to be perfect: one is to the eye what the other is to the ear, and the day is not far distant when this will be practically demonstrated. The principles of harmony, time or rythm, and melody are well defined in music and indisputable: many men of many generations have devoted their entire lives to the development of these principles, and they are known: but in ornament they are not known, and perhaps not recognised even as unknown quantities, simply, the lecturer believed, because as yet no man has ever devoted himself to their elimination; though many of the ancient and middle age designers have evidently had a true perception of them. Notes in music correspond exactly with the component details of form in ornament, and as an independent note is not music, but only sound, so no detail of form is anything more than an individual figure unless subjected to the laws of ornament, as the sounds must be to those of music. The first principle of ornament seems to be repetition: the simplest character of this is a measured succession, in series of some one detail, as a moulding, for instance: this stage of ornament corresponds with melody in music, which is a measured succession of diatonic sounds, the system in both arising from the same source—rythm—in music, called also time,—in ornament, proportion, or symmetry,—in both cases proportion or quantity. The second stage in music is harmony, or a combination of melodies: it is also identical in ornamental art: every correct ornamental scheme is a combination of series, or measured successions of forms, and, upon identical principles in music and ornament, called, in the first, counterpoint, in the other, symmetrical contrast. Such a close analogy must convince even the most sceptical that ornament consists in something more than a mere artistic elaboration of either natural or conventional details, and that all mechanical ingenuity must be kept strictly subservient to theoretical principles of arrangement. The highest imitative skill, employed on the most beautiful natural materials, out of the strict province of so-called fine-art, will engender but mere fanciful vagaries, utterly powerless on the eye, as ornament, when compared with even the crudest materials of the coarsest execution if only arranged in any order or combination